

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (Currently Amended) A sensor system for ~~sensing at least one occupant characteristic of obtaining information about~~ a vehicle occupant, comprising:

transmitting means for transmitting an energy signal toward an occupant location or a location of a part of an occupant within a vehicle;

detecting means for detecting whether ~~absorption~~ reflection of the energy signal by a vehicle occupant or a part of an vehicle occupant occurs and for providing ~~an absorption~~ a reflection signal indicative thereof; and

processing means coupled to said detecting means for processing the ~~absorption~~ reflection signal to identify at least one occupant ~~characteristic~~ biometric feature.

2. (Currently Amended) The system of claim 1, wherein said transmitting means ~~for transmitting includes means for transmitting~~ are arranged to transmit an electromagnetic energy signal toward the occupant location, and said detecting means ~~for detecting includes means for detecting~~ absorption are arranged to detect reflection of the energy signal.

3. (Currently Amended) The system of claim 1, wherein said processing means ~~for processing includes means for determining~~ are arranged to determine if a vehicle occupant is present as ~~the occupant characteristic~~ based on the identification of the at least one biometric feature.

4. (Currently Amended) The system of claim 1, wherein said processing means ~~for processing includes means for determining~~ are arranged to determine a size of a vehicle occupant as the ~~occupant characteristic~~ biometric feature.

5. (Currently Amended) The system of claim 1, wherein said processing means ~~for processing includes means for determining~~ are arranged to determine a location of a vehicle occupant with respect to the vehicle ~~as the occupant characteristic~~ based on the location of the identified at least one biometric feature.

6. (Currently Amended) The system of claim 1, wherein ~~said means for processing includes means for determining at least one biometric feature of the vehicle occupant as the occupant~~

~~characteristic, said determining means being arranged to receive energy signals modified by or reflected from the occupant and process the received energy signals, the at least one biometric feature being is~~ selected from a group consisting of ~~a voice print~~, a hand print, a finger print, an iris scan pattern and a facial feature.

7. (Currently Amended) The system of claim 1, wherein said processing means ~~for processing includes means for determining~~ are arranged to determine a type of a vehicle occupant as ~~the occupant characteristic based on the identification of the at least one biometric feature.~~

8. (Currently Amended) The system of claim 7, wherein said processing means ~~for processing includes means for determining~~ are arranged to determine whether the type of a vehicle occupant is a child in a child seat.

9. (Currently Amended) The system of claim 1, wherein said transmitting means ~~for transmitting~~ and said detecting means ~~for detecting~~ are arranged on a common side of the vehicle occupant location.

10. (Currently Amended) The system of claim 1, wherein said transmitting means ~~for transmitting is a first means for transmitting and said energy signal is a first energy signal, said system including~~ comprise a plurality of ~~means for transmitting systems~~, each for transmitting an energy signal toward the occupant location, said detecting means ~~for detecting includes means for detecting being arranged to detect~~ whether ~~absorption~~ reflection of each energy signal by a vehicle occupant occurs and for providing signals indicative thereof.

11. (Currently Amended) The system of claim 10, wherein one of said plurality of ~~means for transmitting systems~~ is mounted within a headliner of the vehicle, and another of said plurality of ~~means for transmitting systems~~ is mounted elsewhere within ~~an instrument panel~~ of the vehicle.

12. (Currently Amended) The system of claim 11, wherein said detecting means comprise a plurality of detectors, one of said plurality of ~~means for detecting is~~ detectors being mounted within a door of the vehicle.

13. (Currently Amended) The system of claim 1, wherein said transmitting means ~~for transmitting~~ is are mounted within a portion of the vehicle other than a headliner, and said detecting means ~~for detecting~~ is are mounted within a portion of the vehicle other than a seat of the vehicle.

14. (Currently Amended) The system of claim 1, wherein said processing means ~~for processing~~ includes means for providing are arranged to provide a signal indicative of the at least one occupant ~~characteristic~~ biometric feature for use within an occupant protection system.

15. (Currently Amended) A method for ~~sensing at least one occupant characteristic of~~ obtaining information about a vehicle occupant, comprising ~~the steps of:~~

transmitting an energy signal toward an occupant location within a vehicle;

detecting whether ~~absorption~~ reflection of the energy signal by a vehicle occupant occurs;

providing ~~an absorption~~ a reflection signal indicative of the occurrence of energy ~~absorption~~ reflection; and

processing the ~~absorption~~ reflection signal to ~~determine~~ identify at least one occupant ~~characteristic~~ biometric feature.

16. (Currently Amended) The method of claim 15, wherein said step of transmitting includes transmitting an electromagnetic energy signal toward the occupant location, and said step of detecting includes detecting ~~absorption~~ reflection of the energy signal.

17. (Currently Amended) The method of claim 15, wherein said step of processing includes determining if a vehicle occupant is present ~~as the occupant characteristic~~ based on the identification of the at least one biometric feature.

18. (Currently Amended) The method of claim 15, wherein said step of processing includes determining a size of the vehicle occupant ~~as the occupant characteristic~~ based on the identification of at least one biometric feature.

19. (Currently Amended) The method of claim 15, wherein said step of processing includes determining a location of the vehicle occupant with respect to the vehicle ~~as the occupant characteristic~~ based on the location and identification of the at least one biometric feature.

20. (Currently Amended) The method of claim 15, wherein said step of processing includes determining a type of the vehicle occupant ~~as the occupant characteristic~~ based on the identification of the at least one biometric feature.

21. (Previously Presented) The method of claim 20, wherein said step of processing includes determining whether the type of vehicle occupant is a child in a child seat.

22. (Currently Amended) The method of claim 15, wherein ~~said step of processing includes determining at least one biometric feature of the vehicle occupant as the occupant characteristic by receiving energy signals modified by or reflected from the occupant and processing the received energy signals,~~ the at least one biometric feature ~~being~~ is selected from a group consisting of ~~a voice print,~~ a hand print, a finger print, an iris ~~scan~~ pattern and a facial feature.

23. (Canceled)

24. (Canceled)

25. (New) The system of claim 1, wherein the identity of the occupant is determined based on the identification of the at least one biometric feature of the occupant.

26. (New) The method of claim 15, wherein said step of processing includes determining the identity of the vehicle occupant based on the identification of the at least one biometric feature.

27. (New) A sensor system for obtaining information about a vehicle occupant, comprising:  
receiving means for receiving an energy signal from an occupant location or a location of a part of an occupant within a vehicle;

detecting means coupled to said receiving means for detecting that a received energy signal has been generated by a vehicle occupant or a part of an vehicle occupant and for providing a signal indicative thereof; and

processing means for processing the detected energy signal to identify at least one occupant biometric feature.

28. (New) The system of claim 27, wherein the at least one biometric feature is a voice print.

29. (New) A sensor system for obtaining information about a vehicle occupant, comprising:  
generating means for generating an energy signal in a space including an occupant location or a location of a part of an occupant within a vehicle;

detecting means for detecting whether modification of the generated energy signal by a vehicle occupant or a part of an vehicle occupant occurs and for providing a signal indicative of the occurrence of the modification; and

processing means for processing the signal to identify at least one occupant biometric feature.

30. (New) The system of claim 29, wherein said generating means and said detecting means comprise a capacitance sensor system.

31. (New) A sensor system for sensing at least one occupant characteristic of a vehicle occupant, comprising:

transmitting means for transmitting an energy signal toward an occupant location or a location of a part of an occupant within a vehicle;

detecting means for detecting whether absorption of the energy signal by a vehicle occupant or a part of an vehicle occupant occurs and for providing an absorption signal indicative thereof; and

processing means coupled to said detecting means for processing the absorption signal to identify at least one occupant characteristic,

said processing means being arranged to determine at least one biometric feature of the vehicle occupant as the occupant characteristic, said determining means being arranged to receive energy signals modified by or reflected from the occupant and process the received energy signals, the at least one biometric feature being selected from a group consisting of a voice print, a hand print, a finger print, an iris pattern and a facial feature.

32. (New) A method for sensing at least one occupant characteristic of a vehicle occupant, comprising the steps of:

transmitting an energy signal toward an occupant location within a vehicle;

detecting whether absorption of the energy signal by a vehicle occupant occurs;

providing an absorption signal indicative of the occurrence of energy absorption; and

processing the absorption signal to determine identify at least one occupant characteristic biometric feature,

said step of processing including determining at least one biometric feature of the vehicle occupant as the occupant characteristic by receiving energy signals modified by or reflected from the occupant and processing the received energy signals, the at least one biometric feature being selected from a group consisting of a voice print, a hand print, a finger print, an iris pattern and a facial feature.